

IN THE CLAIMS:

1. (Currently Amended) A method of controlling writing of a signal to an optical disc and including the step of generating a feedback signal to dynamically tune the source of the said signal, and further comprising the steps of:

generating a plurality of timing signals serving to define the width and/or position of a plurality of sampling windows for selecting data samples from RF signals derived from the signal reflected from the disc,

generating a plurality of runlength selection signals to allow for measurement of light reflection of the data samples in the sampling windows from RF signals derived from the signal reflected from the disc at required runlength lands or pits, and

measuring light reflected at a run-length runlength land or pit in a processing means and employing the measured signal as the said feedback signal having a calculated slope and offset for the said tuning to dynamically tune of the source of said signal source.

2. (Original) A method as claimed in claim 1, wherein the width and/or positions of the sampling windows are programmable.

3. (Currently Amended) A method as claimed in claim 1, wherein the said RF signals are selected when the runlength signal is high.

4. (Original) A method as claimed in claim 1, wherein the runlength selection window comprises the current plus next runlength land or pit.

5. (Original) A method as claimed in claim 1, wherein the runlength selection window comprises the previous plus current runlength land or pit.

6. (Currently Amended) A method as claimed in claim 1, wherein the sampling rate of the said RF signals is at least equal to the frequency of a system channel clock.

7. (Original) A method as claimed in claim 1, wherein the RF sample signals are selected by means of the timing signals within a sample engine.

8. (Original) A method as claimed in claim 1, and including the step of low pass filtering the sampled signals.

9. (Currently Amended) ~~A method as claimed in claim 8, and~~ A method of controlling writing of a signal to an optical disc and including the step of generating a feedback signal to dynamically tune a source of said signal, and further comprising:

generating a plurality of timing signals serving to define a plurality of sampling windows for selecting data samples in the sampling windows from RF signals derived from the signal reflected from the disc,

generating a plurality of runlength selection signals to allow for measurement of light reflection of the data samples by selecting data samples in the sampling window from RF signals derived from the signal reflected from the disc at required runlength lands or pits, and

measuring light reflected at a runlength land or pit in a processing means and
employing the measured signal as said feedback signal to dynamically tune the source of
said signal, and

low pass filtering the sampled signals, and further including
the step of calculating slope and offset values on the basis of the low pass
sampled signals.

10. (Original) A method as claimed in claim 1, wherein the feedback signal is arranged for fine-tuning the Write Strategy associated with a DVD writable device.

11. (Currently Amended) A method as claimed in claim 1, further and including
the step of adopting a threshold value serving to determine which of the sampled signals
initiate the said measurement.

12. (Original) A method as claimed in claim 11, wherein the selected threshold can be tuned.

13. (Currently Amended) A method as claimed in claim 1, wherein the feedback
signal is arranged to fine-tune laser output power of an optical disc writing device.

14. (Currently Amended) A write signal control apparatus arranged for controlling
writing of data to an optical disc and comprising means for generating a feedback signal
for dynamically tuning the source of the said signal, means for generating a plurality of

timing signals serving to define a width and/or position of a plurality of sampling windows, means for selecting data samples in the sampling windows for RF signals derived from a signal reflected from the disc, means for generating a plurality of runlength selection signals arranged to allow for measurement of the reflection of the data samples selected at a runlength land or pit, and, processing means for measuring the reflected signal at the run length land or pit, wherein ~~the~~-said measured signal serves as ~~the~~-said feedback signal having a calculated slope and offset for tuning ~~the~~-said signal source.

15. (Original) Apparatus as claimed in claim 14, wherein the width and/or positions of the sampling windows are arranged to be programmable.

16. (Currently Amended) Apparatus as claimed in claim 14, wherein signals from the RF analogue-to-digital converter are arranged ~~to be selected~~ for selection when the runlength signal is high.

17. (Original) Apparatus as claimed in claim 14, wherein the runlength selection window comprises the current plus next runlength land or pit.

18. (Original) Apparatus as claimed in claim 14, wherein the runlength selection window comprises the previous ~~plus~~ current run length land or pit.

19. (Currently Amended) Apparatus as claimed in claim 1, wherein the sampling rate of ~~the~~-said RF is at least equal to the frequency of a system channel clock.

20. (Currently Amended) Apparatus as claimed in claim 14, ~~and~~ further including a sample engine in which the said RF sample signals are selected by means of the timing signals.

21. (Original) Apparatus as claimed in claim 14, and including low pass filter means arranged for low-pass filtering the sampled signals.

22. (Currently Amended) ~~Apparatus as claimed in claim 21, and~~ A write signal control apparatus arranged for controlling writing of data to an optical disc and comprising means for generating a feedback signal for dynamically tuning the source of said signal, means for generating a plurality of timing signals serving to define a width and/or position of a plurality of sampling windows, means for selecting data samples in the sampling windows for RF signals derived from a signal reflected from the disc, means for generating a plurality of runlength selection signals arranged to allow for measurement of the reflection of the data samples selected at a runlength land or pit, and, processing means for measuring the reflected signal at the run length land or pit, wherein said measured signal serves as said feedback signal for tuning said signal source;

a low pass filter means arranged for low-pass filtering the sampled signals, and further including means for calculating slope and offset values on the basis of the low pass sampled signals.

23. (Currently Amended) Apparatus as claimed in claim 14, ~~further and~~ including means for defining a threshold value serving to determine which sampled signals is employed in the said measurement.

24. (Original) Apparatus as claimed in claim 23, wherein the selected threshold can be tuned.

25. (Canceled)

26. (Canceled).

27. (New) The method according to claim 9, wherein the slope and offset values are calculated by a digital signal processor.

28. (New) The method according to claim 27, further comprising:
additionally providing the low pass sampled signals to a selecting unit arranged for selecting one of the low pass sampled signals for delivery to a multiplier arranged to receive a slope signal output from the digital signal processor, and
adding an output of the multiplier and an offset signal output from the digital signal processor to provide the resultant feedback signal.

29. (New) The apparatus according to claim 22, wherein the means for calculating slope and offset values includes a digital signal processor.

30. (New) The apparatus according to claim 29, wherein the means for calculating slope and offset values further includes a selecting unit arranged for selecting one of the low pass sampled signals,

a multiplier arranged to receive one of the low pass sampled signals output from the selecting unit and to receive a slope signal output from the digital signal processor, and

an adder arranged to receive an output from the multiplier and an offset signal output from the digital signal processor and output the resultant feedback signal.